WHAT IS CLAIMED IS:

1. A method of forming a blind via through a first dielectric layer having a first surface laminated to a conductive metal core, said via terminating at a first surface of the core, comprising the steps of:

a) preparing a contaminant-free hole in the dielectric layer terminating at the surface of the core, and

b) plating a conductive metal into the hole to deposit the metal solely on the surface of the core, and to build the metal deposit from the core surface.

2. The method according to claim 1 wherein the hole in the dielectric layer is prepared by laser drilling, followed by removal of drill debris, if any.

3. The method according to claim 1 wherein the plated metal is selected from the group consisting of copper, nickel, gold, palladium and their alloys.

4. The method according to claim 3 wherein the conductive metal is copper that is electroplated into the hole from an acid copper bath using the conductive core as a cathode.

5. The method according to claim 4 wherein the copper is electrodeposited in the hole to form a nearly equiaxial fine grained structure.

6. The method according to claim 5 wherein the copper is deposited to form a structure having an elongation between about 10% and about 20% and an ultimate tensile strength of between about 30,000 psi and about 50,000 psi.

7. The method according to claim 1 wherein the hole is completely filled with metal to form a filled blind via.

8. The method according to claim 1 further including laminating a second dielectric layer to a second surface of the first dielectric layer, providing a second layer blind via in the second dielectric layer aligned with the first blind via, and having a base of the second layer via in contact with the first blind via.

9. The method according to claim 8 wherein the cross-sectional area of the first layer blind via is larger than the cross-sectional area of the base of the second layer blind via.

10. The method according to claim 8 further including the step of plating a contact pad on the second surface of the first dielectric layer in contact with the filled via.

11. The method according to claim 1 wherein excess metal extending above the dielectric surface is removed to form a landless filled blind via.

12. The method according to claim 10 wherein the contact pad has a cross-section that is larger than the cross-section of the base of the second layer blind via.

13. The method according to claim 1 wherein the metal is plated in the hole from an electroless plating bath without seeding.

14. The method according to claim 13 including the steps of laminating a second dielectric layer to the second surface of the first dielectric layer, and providing a second layer blind via aligned with the first blind via and having a base in contact with the contact pad.

15. The method according to claim 13 wherein the electroless plating bath is a copper bath.

16. The method according to claim 7 wherein palladium dendrites are plated on top of the filled blind via to create a rough surface.

17. The method according to claim 7 wherein the surface of the filled blind via is etched to create a rough surface.